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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,712	12/14/2001	Gottlieb-Georg Lindner	213142US0	4111

22850 7590 10/17/2003

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EXAMINER

NGUYEN, NGOC YEN M

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 10/17/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/014,712

Applicant(s)

LINDNER ET AL.

Examiner

Ngoc-Yen M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Applicant's election with traverse of Group I, claims 1-17 and Zr species in Paper No. 7 and 9 is acknowledged. The traversal is on the ground(s) that the Office has failed to show how the alleged use of the product of Group I for "textile treatment" is materially different from the method of Group II. This is not found persuasive because as Group II is drawn to a method of making paper, thus, as evidence by claim 19, which is drawn to a method of making textiles, the product as claimed can be used in a materially different process of using that product. Also, Group II, III and IV are unrelated because they are drawn to three different processes, namely, a process for making paper, a process for making textiles and a process of coating paper, these processes have different functions and different effects.

Applicants also urge that the rules do not provide for an election of species in a subsequent action, especially when no amendment was made prior thereto.

37 CFR 1.142(a), second sentence states: "[i]f the distinctness and independence of the invention be clear, such requirement will be made before any action upon the merits; however, it may be made at any time before final action in the case at the discretion of the examiner." This means the examiner should make a proper requirement as early as possible in the prosecution, in the first action if possible, otherwise, as soon as the need for a proper requirement develops. See MPEP 811. The same rule would be applicable to Election requirement also.

The requirement is still deemed proper and is therefore made FINAL.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rekers et al (5,231,066).

Rekers '066 discloses a method of preparing a silica gel particle, comprising the steps of:

- a. forming a silica hydrogel by neutralizing an aqueous solution of a silicate, wherein the silicate includes a cation selected from the group consisting of alkali metals, ammonium, and combinations thereof, by adding the silicate solution to a first aqueous acid solution to raise the pH of the first aqueous acid solution until the silica hydrogel is precipitated;
- b. aging the silica hydrogel of step a. in the resulting solution of step a. for a time sufficient to provide an aged silica hydrogel having a first average pore radius;
- c. adding silicate solution as defined in step a. to the aged hydrogel and solution of step b. to raise the pH thereof to at least about 9;
- d. neutralizing the resulting hydrogel and solution of step c. by adding a second aqueous acid solution thereto to sufficiently lower the pH thereof to further precipitate the silicate as a hydrogel having a second average pore radius on the hydrogel of step b.; and

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e. heat-aging the resulting hydrogel and solution of step d. for a sufficient time and at a sufficiently high temperature to fix the respective first and second average pore radii of the hydrogel of step d. (note claim 1)

The acid can be sulfuric acid (note claim 2).

As disclosed in Examples 15-16, titanium, zirconium, vanadium can be added to the process. The zirconium compounds can be an alkali metal or an ammonium zirconium oxalate (organic compound) (note column 17, lines 47-66). Preferably, the sum of the zirconium and titanium and vanadium concentrations with respect to silica, as SiO_2 is about 5 wt% or less (note column 18, lines 1-5). This range would overlap the claimed range of "maximum surface concentration of the foreign atoms of between $1 \cdot 10^{-5}$ and 0.05 mmol/m^2 ". The titanium and/or zirconium and/or vanadium-containing compounds are coprecipitated with the silicate salt. Such coprecipitations result in an intimate incorporation and distribution of the titanium and/or zirconium and/or vanadium into the bulk of the silica (note column 18, lines 5-17).

Rekers '066 further teaches that the surface area is from 200 to $500 \text{ m}^2/\text{g}$ (note sentence bridging columns 11 and 12). This range overlaps the claimed range. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549.

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As to the order of the addition of the reactants, it would have been obvious to one of ordinary skill in the art to optimize such order in order to obtain a silica with the desired properties as disclosed in Rekers '066.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (703) 308-2536. The examiner can normally be reached on Part time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Ngoc-Yen M. Nguyen
Primary Examiner
Art Unit 1754

nmn
10/6/03